

ABSTRACT

The present invention provides an opto-electronic device with an integrated light deflector comprises: a passive optical waveguide having a lower cladding layer, a core, and an upper cladding layer to guide and transmit optical signals; and a light deflector formed by patterning the upper cladding layer in a predetermined shape at an upper portion of the passive optical waveguide, wherein a refractive index of the core under the predetermined shape is modified to deflect a light beam by applying a current or an electrical field to the light deflector.

According to the present invention, it is possible to provide an opto-electronic device with an integrated light deflector capable of deflecting the light propagation direction without necessity of a complicated external driving circuitry.